STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

C. HEIDI GRETHER
DIRECTOR

December 20, 2018

CERTIFIED MAIL – 7014 0150 0001 0742 3975
RETURN RECEIPT REQUESTED

Mr. Scott Wright
Diamond Chrome Plating Inc.
604 South Michigan Avenue
P.O. Box 557
Howell, Michigan 48844

Dear Mr. Wright:

SUBJECT: Reimbursement of Past Costs and Compliance Communication; Diamond Chrome Plating Facility; 604 South Michigan Avenue, Howell, Livingston County; Facility ID No.: 47000202

In a letter dated May 31, 2018, the Department of Environmental Quality (DEQ) informed Diamond Chrome Plating (DCP) that the Contamination Investigation (CI) required by the First Amended Consent Decree, No. 03-1862-CE (FACD) failed to meet the performance objectives set forth in Section 6.1(c) of the FACD and was therefore not completed by the agreed upon extension date of September 30, 2016.[1] DCP was also informed that pursuant to Section 15.1 of the FACD, it is responsible for the payment of $69,003.19 that corresponded with the CI due date. In a letter to DCP dated July 20, 2018, the DEQ agreed to hold this payment in abeyance pending further investigations by DCP and evaluation of the data from these further investigations by the DEQ. DCP was informed in the July 20, 2018, letter that stipulated penalties related to the incomplete CI are accruing pursuant to Section 16.2 of the FACD. Based upon DEQ's review of the November 1, 2018, progress report, the CI remains incomplete therefore DCP shall submit the required payment of $69,003.19 within 30 days of receipt of this letter.

Pursuant to Section 6.7 of the FACD, the CI was to be completed at the Diamond Chrome Plating Facility (Facility) by June 30, 2016. At the request of DCP, this deadline was extended by the DEQ to September 30, 2016. Section 6.7 further requires the CI to achieve the performance objectives in Section 6.1(c) of the FACD, which provides that DCP shall "conduct complete investigations of soil and groundwater contamination at the Facility to fully define the vertical and horizontal extent of contamination and an evaluation of groundwater contamination by analysis of contaminant concentrations over time on and off the Property."

On November 1, 2018, the DEQ received a quarterly progress report from DCP detailing investigations undertaken in July and August 2018. After evaluating the data contained in the progress report, the DEQ has determined that the CI remains incomplete and has not achieved

[1] By letter dated March 22, 2017, the DEQ informed DCP that it would evaluate the status of the CI upon receipt of the Conceptual Site Model (CSM). On April 3, 2017, DCP submitted a hard copy of the CSM to the DEQ, and on August 30, 2017, DCP resubmitted its CSM to include missing appendices identified by DEQ staff during earlier review. By letter dated December 28, 2017, the DEQ denied the CSM for its failure to meet performance objectives contained in Paragraphs 6.1(c), 6.1(d) and 6.1(e) of the FACD.

the performance objectives in Section 6.1(c) of the FACD to fully define the vertical and horizontal extent of contamination, as detailed below:

1. Groundwater samples collected from monitoring well MW-601 on July 24 and August 23, 2018, found vinyl chloride at concentrations of 4.0 and 3.4 µg/L respectively, both above the Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) generic criteria for residential drinking water. MW-601 is the furthest downgradient monitoring well in the area, thus, the horizontal extent of contamination is unknown south of MW-601.

2. A groundwater sample collected from monitoring well MW-602 on July 24, 2018, found arsenic (total) at a concentration of 37 µg/L, above the Part 201 generic criteria for residential drinking water. MW-602 is the furthest downgradient monitoring well in the area, thus, the horizontal extent of contamination is unknown south of MW-602.

3. On June 20, 2018, the DEQ transmitted site-specific volatilization to indoor air criteria (VIAC) for this Facility to DCP and its consultant, BB&E, for the purpose of investigating the volatilization to indoor air pathway (VIAP). As discussed with DCP attorney Todd Fracassi and BB&E representatives Jim Colmer and Cindy Lang on October 23, 2018, the site-specific VIAC are necessary to evaluate the VIAP for all media because Facility conditions do not meet generic assumptions used to develop Part 201 default soil and groundwater criteria. If DCP uses the site-specific VIAC provided by the DEQ, the site-specific numbers shall be used for all media. As an alternative, DCP may develop site-specific criteria pursuant to Section 20120b of Part 201 for DEQ review, however, the DEQ has not received a request to review criteria proposed by DCP. Section 6.7(a) of the FACD (Contamination Investigation) instructs that "All exposure pathways shall be investigated, including but not limited to, air, groundwater, surface water, and soil." DCP last sampled soil gas wells in January 2017 and has not fully investigated the VIAP.

4. The presence of chlorinated solvents including vinyl chloride, trichloroethylene (TCE), and tetrachloroethylene (PCE) in the soil, groundwater, and soil gas at this Facility and at off-site properties necessitate that DCP evaluate the VIAP by installing and sampling sub-slab soil gas vapor pins in all businesses and residences within 100 feet of the known vapor sources released by DCP, as determined by the conceptual site model (CSM). Complete evaluation of the VIAP is a priority because toxic effects of certain chlorinated solvents may occur over short-term exposure periods. The DEQ has performed a preliminary evaluation of the VIAP to off-property receptors, however, further evaluation is necessary as indicated below:

    a. The residence at 712 Pinckney Road (occupied residential structure with a basement) needs an expedited evaluation of the VIAP risk/exposure.

    b. Other properties identified as needing evaluation of the VIAP risk/exposure include 716 Michigan Avenue, 718 Pinckney Road, 704 Pickney Road, and possibly 733 Walnut Street, if this residence is confirmed to be within 100 feet of the chlorinated solvent vapor sources.

    c. Analytical results from soil gas, soils, and groundwater in the vicinity of these businesses and residence indicate the potential for chlorinated solvents to volatilize into the indoor air.

i. DCP soil gas analytical results for vinyl chloride exceeded residential site-specific VIAC of 54 µg/m^3 at VP06-16 for all 2016 and 2017 sample events. This location is adjacent to the storm and sanitary sewer utility corridor BB&E staff discovered in 2018 to be connected to the residence at 712 Pinckney Road via an old sanitary sewer line.

ii. Soil boring analytical data collected in July 2018 found TCE to exceed residential site-specific VIAC of 0.33 µg/kg at SB-05-18 (550 µg/kg at 16' depth no water sample collected). This soil boring is located near the connection of the residential sanitary sewer line at 712 Pinckney Road to the main line. Additionally, analytical results for TCE and cis-1,2 dichloroethylene in soils exceeded residential site-specific VIAC at SB-04-18 north of this residence at concentrations of 1,200 µg/kg and 410 µg/kg respectively.

iii. Groundwater analytical data collected in July 2018 from TW-04-18 (16 µg/L) north of the residence at 712 Pinckney Road detected vinyl chloride above the residential site-specific VIAC of 0.12 µg/L. Vinyl chloride was also detected at MW-601 and TW-19-19, south of the residence at 712 Pinckney Road at concentrations of 4 µg/L and 340 µg/L respectively. Other chlorinated solvents exceeding residential site-specific VIAC for soils and groundwater along this utility corridor include cis-1,2 dichloroethylene, TCE, and PCE.

d. Response activities necessary to evaluate the VIAP at 712 Pinckney Road include installation of one or more sub-slab soil gas vapor pins in the basement. At least four sampling events to account for seasonal soil gas concentration fluctuations are necessary to evaluate volatilization to indoor air risk. Any exceedance of site-specific VIAC for the Facility will require further investigation or immediate mitigation of the vapors at the residence.

e. The evaluation of commercial establishments listed above in number 4(b), that are within 100 feet of vapor sources, includes installation of sub-slab soil gas vapor pins in the lowest level of the commercial structure sampled over at least four quarters to represent seasonal soil gas concentration fluctuations. Any exceedance of site-specific VIAC for the Facility will require further investigation or immediate mitigation of the vapors.

5. Analytical results from July and August 2018 detected PCE above residential site-specific VIAC in soils and groundwater on and off the property near Livingston Street and Michigan Avenue at SB-14-18 and SB-09-18/TW-09-18. The location of soil gas well VP03-16 was determined prior to the 2018 data and thus, soil gas concentrations may not be representative of the risks posed by the vapor sources. PCE was detected in VP03-16 at 150 ug/m3, below residential site-specific VIAC, however, based on soil and groundwater data, PCE in soil gas may pose risk to the residences within 100 feet of the vapor sources. The VIAP in the area of Livingston Street and Michigan Avenue is not fully investigated.

6. Information collected in 2018 found that a sanitary sewer line running parallel to the storm sewer south of the railroad tracks along the trace of Pinckney Road west of

Michigan Avenue is associated with migration of contaminants from DCP releases. The location and depth of active and inactive underground utilities and their connections to structures, present and historic, must be evaluated to determine if hazardous substances in soils and groundwater are migrating beyond the utility pipes and backfill.

7. The July and August 2018 sampling events identified PCE in groundwater above generic residential drinking water criteria in the northeastern portion of the DCP Facility at TW-16-18 and TW-09-18. PCE was also detected in soils at SB-16-18 and SB-14-18 in the northeastern portion of the facility. PCE concentrations in this area are not delineated.

Since the CI remains incomplete, stipulated penalties continue to accrue. The DEQ will evaluate assessment of stipulated penalties based on future compliance with the FACD.

Pursuant to Section 15.4 of the FACD, all payments made pursuant to Paragraphs 15.1 and 15.2 shall be made by check and sent to the Accounting Services Center at the address listed in Paragraph 13.1(a)(vii) of Section XIII of the FACD. Please designate "Diamond Chrome Plating Inc. Facility", the Ingham County Court Case Number, and the DEQ Account Number MUL 3011 on the check.

The DEQ is providing DCP the opportunity to voluntarily perform the response activities identified in number 4 above, to investigate potential threats to human health from volatilization of hazardous substances into indoor air at the residence and commercial properties listed above. If DCP decides to commit to performing these response activities, DCP must provide a written commitment no later than 7 days from receipt of this letter. If DCP does not commit to performing these response activities, the DEQ will proceed with implementation of the response activities. Investigations at 712 Pickney Road shall be initiated no later than February 28, 2019. Investigations at other properties listed in number 4(b) above shall be initiated no later than March 29, 2019. Please be advised that the DEQ may request assistance from the Michigan Department of Attorney General to recover from DCP any costs that are incurred by the state to perform these response activities, including any costs and associated interest that are incurred to develop, execute, oversee, or cancel any state contracts for the performance of these response activities.

The DEQ's review of the November 2018 progress report identified additional FACD compliance deficiencies including:

1. More than 30 days have elapsed since DCP became aware of hazardous substances exceeding Part 201 criteria for unrestricted residential use present in areas south of the DCP Facility adjacent to property owners not previously notified pursuant to the requirements of Section 6.6(a) of the FACD and Section 20114(1)(b)(ii) of Part 201. DCP must therefore immediately notify the owners of property where the hazardous substances are present.

2. Historic soil concentrations above direct contact criteria near the southeast corner of the DCP plant will need to be defined in order to place reliable restrictions preventing contact with soils in certain areas.

3. DCP's reply to the DEQ's CSM comments regarding its alternate compliance to Michigan Occupational Safety and Health Administration (MIOSHA) for the VIAP for all its workers or transient workers is not enough to demonstrate compliance with MIOSHA.

DCP provided one MOISHA inspection report demonstrating compliance at the time of the inspection. DCP has not sufficiently documented that hazardous substances present in groundwater, soil, and/or vapor, but not currently being used in the processes at the Facility are accounted for in the Facility's hazard communication program and is being monitored under all applicable MIOSHA regulations and rules. See Attachment A for the information necessary to demonstrate compliance with the MIOSHA provision at the Facility. If DCP is found to be out of compliance with MIOSHA, then the DEQ site-specific VIAC to evaluate the volatilization to indoor air pathway apply at the DCP Facility.

4. In Attachment A of the November 2018 progress report, DCP responded to a DEQ correspondence dated December 28, 2017, in which the DEQ identified deficiencies in DCP's CSM submittal. The DEQ has been working with DCP to achieve the performance objectives in Section 6.1 of the FACD and is concerned that DCP's CSM failed to meet these performance objectives. A complete contamination investigation, synthesis of data in a manner to enable identification of delineation gaps, completion of contaminant migration pathway evaluation and complete identification and characterization of potential environmental receptors are thus far incomplete items that are key to DCP meeting the performance objectives, completing construction and operation of all physical components of the remedial action by the deadline of December 31, 2019, and ultimately submitting an Achievement Report.

5. In emails dated September 19 and October 2, 2018, DCP stated that revised portions of the CSM along with a red-line of the entire text showing edits would be forwarded to the DEQ. Since the DEQ has not received this revised CSM, the DEQ does not have a basis to determine if the remedial action schedules or selection of the remedial actions included in the November 2018 progress report will meet the performance objectives specified in Section 6.1(e) of the FACD. The submitted remedial action schedules do not include submittal of a revised CSM, continued evaluation of the VIAP and potential mitigation, and remediation or exposure control of hazardous substances in soils. Without revised portions of the CSM, an evaluation of DCP's comments in reply to the DEQ's identified deficiencies in DCP's CSM submittal cannot be performed.

6. DCP ceased quarterly groundwater monitoring in January 2017 in conflict with the performance objective of evaluating groundwater contamination by analysis of contaminant concentrations over time on and off the Property. Groundwater elevation data and collection of appropriate contaminant parameters from sentinel monitoring wells such as MW-700 have not been collected on a regular basis to determine how concentrations of contamination are migrating over time.

Please note that the discovery of migrating per- and polyfluoroalkyl substance contamination is likely of sufficient public interest to necessitate Public Notice and Public Meeting Requirements pursuant to Section 6.13 of the FACD (Section 20120d of Part 201).

The DEQ is concerned that DCP does not have the necessary information to make decisions relating to the implementation of final response activities required by the FACD within the time frame specified. While the submitted remedial action schedules appear to pertain to the performance of necessary interim responses to address groundwater contamination near the DCP Facility, the schedules do not include completion of response activities to bring the Facility into compliance with Part 201. The DEQ requests a meeting with DCP to discuss the contents

of this letter and offer assistance in meeting the performance objectives of the FACD within the time frames specified in the FACD.

If you have any further questions regarding this matter, please contact Ms. Rebecca Taylor, Project Manager, 517-284-5160; taylorr@michigan.gov; or DEQ, Lansing District Office, 525 West Allegan Street, Lansing, Michigan 45909; or you may contact me.

Sincerely,

Susan Leeming, Director
Remediation and Redevelopment Division
517-284-5144

Enclosure

cc: Ms. Celeste Holtz, BB&E
Mr. Todd Fracassi, Pepper Hamilton, LLP
Mr. Brian Negele, Michigan Department of Attorney General
Ms. Kathleen Shirey, DEQ
Mr. Joshua Mosher, DEQ
Mr. Dennis Eagle, DEQ
Ms. Rebecca Taylor, DEQ
Mr. Dan McGeen, DEQ
Mr. Bryan Grochowski, DEQ
Ms. Carla Davidson, DEQ
Ms. Lisa Agosta, DEQ
Ms. Maureen Nelson, DEQ
Ms. Alexandra Clark, DEQ
Mr. Malcolm Meade O'Brien, DEQ
Ms. Renee Denison, DEQ

Attachment A

The information necessary to demonstrate compliance with the MIOSHA provision at the facility, includes:

• Identification of, and documentation to support that the facility is an establishment covered by the classifications identified as Sector 31-33 of the North American Industry Classification System, United States, 2012, published by the office of management and budget. A list of the facilities covered by this classification can be found at: https://www.census.gov.

• Documentation from a Certified Industrial Hygienist (CIH) that the facility is in compliance with 1) the Michigan occupational safety and health act[2], and the rules promulgated under that act applicable to the exposure to the hazardous substance[3], 2) the facility's hazard communication program under section 14a of the Michigan occupational safety and health act, and 3) the hazard communication rules. Alternatively, the DEQ will accept documentation from MIOSHA indicating they have recently inspected the operating facility and the facility is in compliance.

• Documentation from a CIH or from the MIOSHA that indicates those hazardous substances present in groundwater, soil, and/or vapor, but not currently being used in the processes at the facility are accounted for in the facility's hazard communication program, as identified above, and is being monitored under all applicable MIOSHA regulations and rules.

• Documentation from a CIH or from the MIOSHA that indicates which employees (e.g., all employees, including non-factory/manufacturer workers such as office staff, janitorial staff, maintenance staff, etc., or factory/manufacturer workers only), and what area(s) of the structure were accounted for and included in programs to monitor, communicate, etc. as required by the MIOSHA.

• Signed confirmation from the CIH, indicating the information provided is complete and true to the best of that person's knowledge and the facility is in compliance with the MIOSHA requirements.

---

[2] 1974 PA 154 MCL 408.1001 to 408.1094.

[3] Including, but not limited to, the occupational health standards for air contaminants, R 325.51101 to R 325.51108 of the Michigan administrative code.